

IN THE CLAIMS

1. (Original) An electrically conductive precursor composition comprising:

an organic polymer precursor;

a single wall nanotube composition, wherein the single wall nanotube composition contains at least 0.1 wt% of production related impurities; and

an optional nanosized conductive filler.
2. (Original) The composition of Claim 1, wherein the organic polymer precursor may be polymerized into a thermoplastic polymer.
3. (Original) The composition of Claim 1, wherein the organic polymer precursor is polymerized into a polyacetal, polyacrylic, polycarbonate, polystyrene, polyester, polyamide, polyamideimide, polyarylate, polyarylsulfone, polyethersulfone, polyphenylene sulfide, polyvinyl chloride, polysulfone, polyimide, polyetherimide, polytetrafluoroethylene, polyetherketone, polyether etherketone, polyether ketone ketone, polybenzoxazole, polyoxadiazole, polybenzothiazinophenothiazine, polybenzothiazole, polypyrazinoquinoxaline, polypyromellitimide, polyquinoxaline, polybenzimidazole, polyoxindole, polyoxoisindoline, polydioxoisindoline, polytriazine, polypyridazine, polypiperazine, polypyridine, polypiperidine, polytriazole, polypyrazole, polypyrrolidine, polycarborane, polyoxabicyclononane, polydibenzofuran, polyphthalide, polyacetal, polyanhydride, polyvinyl ether, polyvinyl thioether, polyvinyl alcohol, polyvinyl ketone, polyvinyl halide, polyvinyl nitrile, polyvinyl ester, polysulfonate, polysulfide, polythioester, polysulfone, polysulfonamide, polyurea, polyphosphazene, polysilazane, or a combination comprising at least one of the foregoing organic polymers.
4. (Original) The composition of Claim 1, wherein the organic polymer precursor is a monomer, dimer, trimer, or an oligomeric reactive species having up to about 40 repeat units.
5. (Original) The composition of Claim 2, wherein the thermoplastic polymer has a molecular weight of greater than or equal to about 3,000 grams per mole.

6. (Original) The composition of Claim 1, wherein the single wall carbon nanotube composition comprises single wall carbon nanotubes having a diameter of about 0.7 to about 2.4 nanometers.

7. (Original) The composition of Claim 6, wherein the single wall carbon nanotubes have an aspect ratio of greater than or equal to about 5.

8. (Original) The composition of Claim 1, wherein the organic polymer precursor composition further comprises a solvent.

9. (Original) The composition of Claim 6, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 10 carbon nanotubes.

10. (Original) The composition of Claim 6, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 100 carbon nanotubes.

11. (Original) The composition of Claim 6, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 1000 carbon nanotubes.

12. (Original) The composition of Claim 1, wherein the single wall carbon nanotube composition comprises up to about 10 wt% impurities, wherein the impurities are iron, iron oxides, yttrium, cadmium, nickel, cobalt, copper, soot, amorphous carbon, multi-wall carbon nanotubes, or a combination comprising at least one of the foregoing impurities.

13. (Original) The composition of Claim 1, wherein the single wall carbon nanotube composition comprises up to about 80 wt% impurities, wherein the impurities are iron, iron oxides, yttrium, cadmium, nickel, cobalt, copper, soot, amorphous carbon, multi-wall carbon nanotubes, or a combination comprising at least one of the foregoing impurities.

14. (Original) The composition of Claim 6, wherein the single wall carbon nanotubes are metallic, semi-conducting, or a combination comprising at least one of the foregoing carbon nanotubes.

15. (Original) The composition of Claim 14, wherein the single wall carbon nanotubes comprise about 1 to about 99.99 wt% metallic carbon nanotubes.

16. (Original) The composition of Claim 14, wherein the single wall carbon nanotubes comprise about 1 to about 99.99 wt% semi-conducting carbon nanotubes.

17. (Original) The composition of Claim 6, wherein the single wall carbon nanotubes are armchair nanotubes, zigzag nanotubes, or a combination comprising at least one of the foregoing nanotubes.

18. (Original) The composition of Claim 14, wherein the single wall carbon nanotubes comprise about 1 to about 80 wt% impurities.

19. (Original) The composition of Claim 1, wherein the nanosized conductive fillers have at least one dimension of less than or equal to about 100 nanometers.

20. (Original) The composition of Claim 1, wherein the nanosized conductive fillers are carbon black, multiwall carbon nanotubes, vapor grown carbon fibers, conductive metal particles, conductive metal oxides, metal coated fillers, nanosized conducting organic/organometallic fillers, conductive polymers, or a combination comprising at least one of the foregoing fillers.

21. (Original) The composition of Claim 20, wherein the metal coated fillers and the conductive metal particles comprise aluminum, copper, magnesium, chromium, tin, nickel, silver, iron, titanium, or a combination comprising at least one of the foregoing metals.

22. (Original) The composition of Claim 20, wherein the metal coated fillers comprise silica powder, boron-nitride powder, boron-silicate powder, alumina, magnesium oxide, wollastonite, calcium sulfate, calcium carbonate, talc, mica, feldspar, silicate spheres, flue dust, cenospheres, fillite, aluminosilicate, sand, quartz, quartzite, perlite, tripoli, diatomaceous earth, synthetic silica, or a combination comprising at least one of the foregoing fillers.

23. – 48. (Cancelled)

49. (Original) An article manufactured from the composition of Claim 1.

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50. – 51. (Cancelled)